



The National Weather Service Forecast Offices

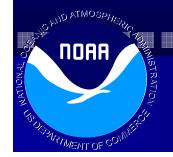
When a hurricane begins to affect land...your <u>Local</u> NWS Forecast Office takes the handoff from the NWS NHC and provides its local WFO expertise to mesoscale warnings, impacts and products for their county warning areas.

60th Interdepartmental Hurricane Conference Mobile, AL – March 21, 2006

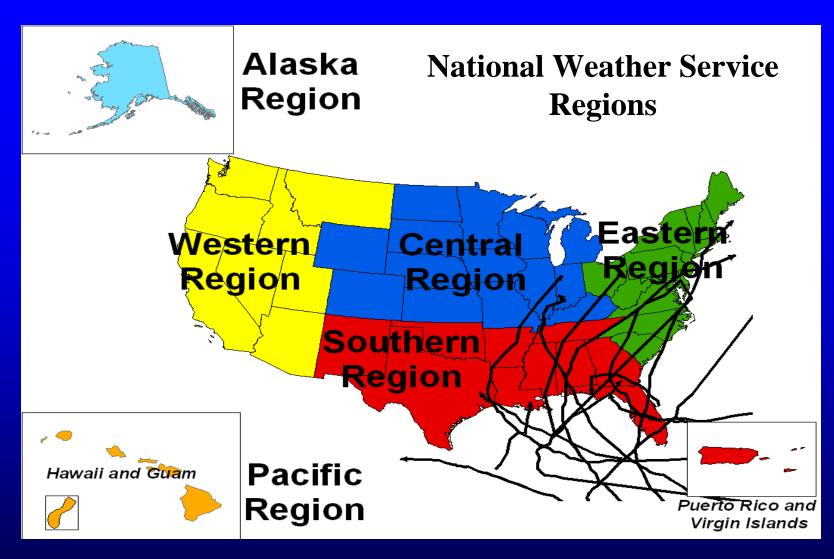
Bill Proenza
Regional Director
National Weather Service
Southern Region

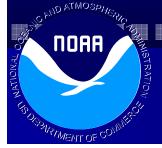
The National Weather Service

- With the "Local" Weather Forecast Offices most successfully provided mesoscale expertise with warnings and forecast products time and time again when the 2004-2005 Hurricanes repeatedly targeted our Southern States.
- Your Source for our WFO Coastal "88D" Radar Network –
 In addition, this past season, the Southern Regional Headquarters
 developed and implemented a greatly expanded internet radar
 depiction and data using GIS, velocity data and many more vital
 features.
- Your Preparedness and Information Partner for Emergency Management, state and local government and you, our Interdepartmental partners.



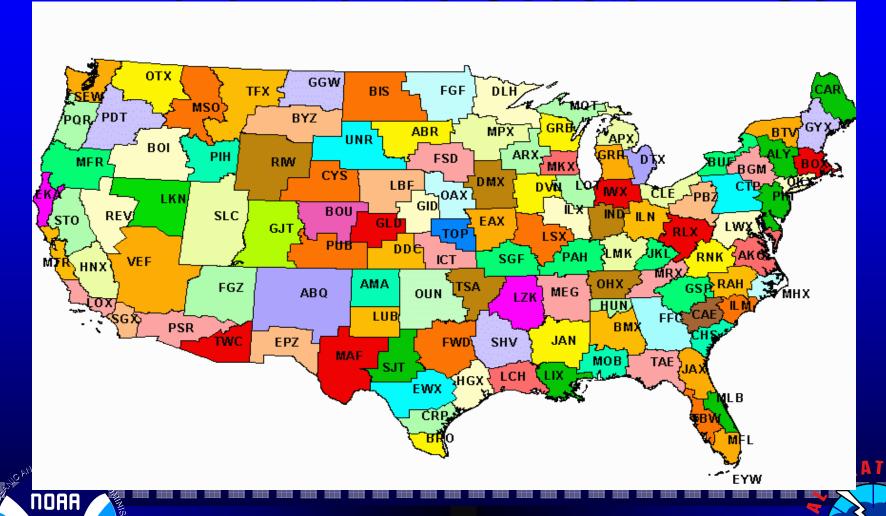








122 NWS Warning Forecast Offices 22 are Atlantic Coastal WFOs





The WFO's Information Flow

Satellite Data

Surface Obs. & Buoy Data

Radar Data

NCEP Guidance

Upper Air Data

Local Modeling

RFC Guidance

Storm Spotters & Amateur Radio

Co-Op Observers & Mesonet

Local Warning & Forecast Offices & Regional Operations Center

CWSU

Regional Web Farms

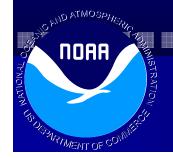
Partners, Public, Private





Your RO and Local WFO is Vital

- The 24x7 source for mesoscale warnings (Hurricane Local Statements, surge, wind, flood, tornado etc.) and forecast services (e.g. hazardous weather outlooks, statements etc.)
- Your active Partner in Community Preparedness and with all weather information.
- And, for those interdepartmental partners with the mission need, we'll provide 24x7 weather support for natural and man made (accidental or intentional) events. And as we also did for each Governor's office we'll provide your command center a "tactical met".

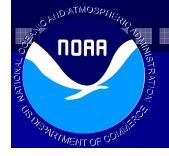




Regional Operations Center "ROC" at Southern Region Hqs. provides:

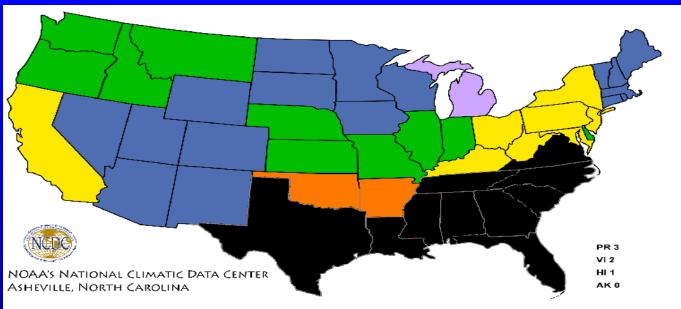
- Federal/State/Local EM and Media briefings
- Multi-NWS office contingency preparation for all hurricane landfalls
- Deploys staff to WFOs and/or "tactical mets" to your field command centers.
- handles post event recovery for WFO's
- 817-978-1100 x147







World's Most Active Weather!



NUMBER OF EVENTS			
	16 - 25		
	13 - 15		
	10 - 12		
	7 - 9		
	4 - 6		
	1 - 3		

DISASTER TYPE	NUMBER OF EVENTS	PERCENT FREQUENCY	NORMALIZED DAMAGES (Billions of Dollars)	PERCENT DAMAGE
Tropical Storms/Hurricanes	24	35.8%	269	52.0%
Non-Tropical Floods	12	17.9%	55	10.6%
Heatwaves/Droughts	11	16.4%	145	28.1%
Severe Weather	7	10.4%	13	2.5%
Fires	6	9.0%	13	2.5%
Freezes	2	3.0%	6	1.2%
Blizzards	2	3.0%	9	1.7%
Ice Storms	2	3.0%	5	~1.0%
Noreaster	1	1.5%	2	~0.3%
	67		517	

Please note that the national map color-coded by state reflects a summation of billion dollar events, for each state affected--ie, it does not mean that each state shown suffered at least \$1 billion in losses for each event.

Billion Dollar Weather Events, 1980-2005





Your WFOs are Saving Lives!

April '74 "Palm Sunday" Tornado Outbreak

- Single largest 24 hour tornado outbreak
- 148 Tornadoes
- 330 Fatalities
- Up to 5 Minute
 Warning Lead Time

May 2003 Tornado Outbreak

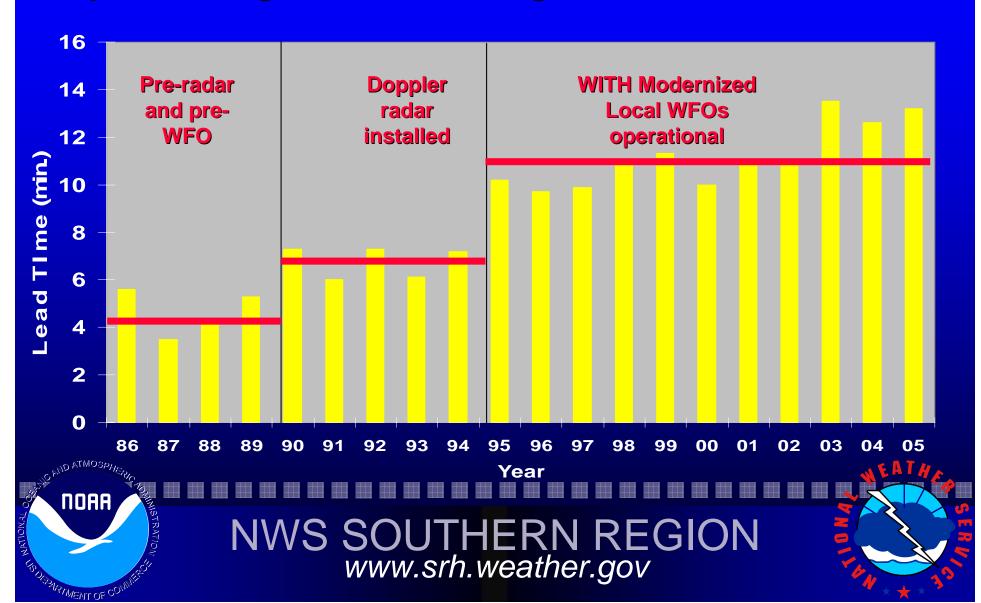
- Unprecedented in size & time (9 days)
- 393 Tornadoes
- 39 Fatalities
- Averaged over <u>16</u>
 <u>Minutes</u> Warning
 Lead Time





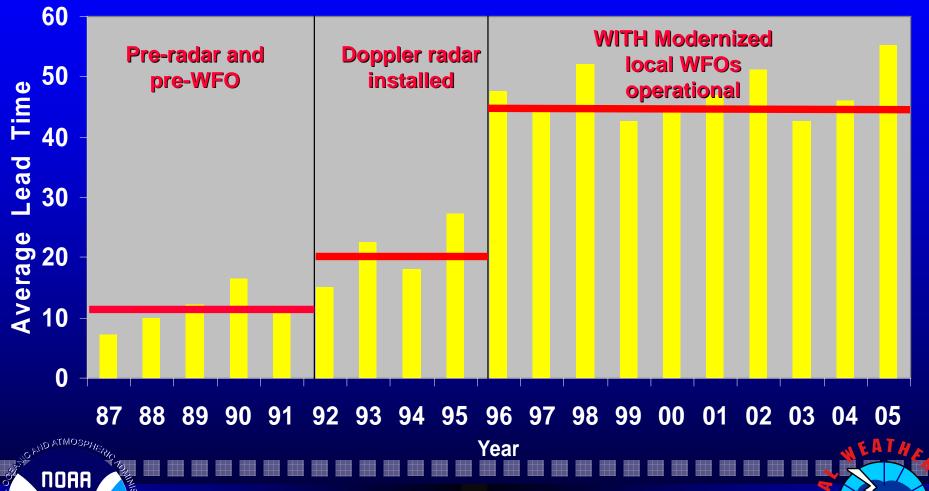
Local WFOs Save Lives

By increasing Tornado Warning Lead Time



Local WFOs Save Lives

By increasing Flash Flood Warning Lead Time



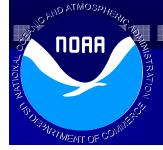


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Katrina Impacts Widely Felt

- LIX, LCH, SHV, and JAN lost commercial communications
- LMRFC moved to Memphis WFO, later to WGRFC
- MOB, BMX, HUN, HGX, TAE, and FWD assumed backup roles as planned to assist offices in need<u>all</u> seamless to customers!
- WFO Atlanta provided advance warnings for largest August tornado outbreak in GA history



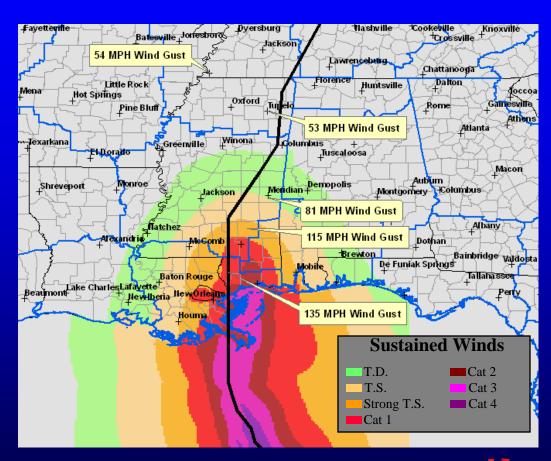






Katrina's Inland Reach

- Hurricane Winds observed as far north as central MS
- T.S. winds observed as far north as the TN valley
- 14 SR WFO's* and 2 RFC's <u>directly</u> impacted by Katrina
- 20 SR WFO's, 3 RFC's, and SRH operationally involved in the backup and recovery for Katrina



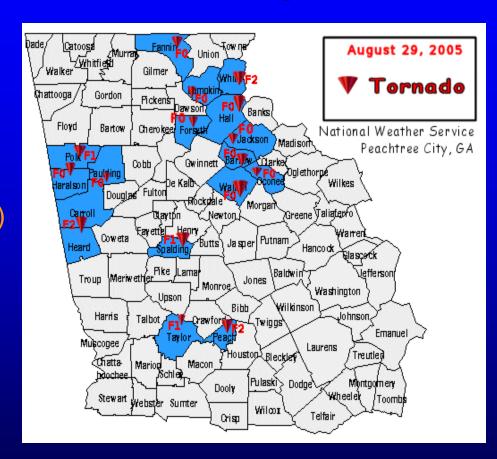


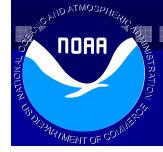
*Includes South Florida offices during 1st landfall



Katrina Tornadoes in GA

- New Georgia Records
 - 18 Tornadoes
 - The most ever in a single day
 - The 1st tornado fatalities (2) in August
 - Greatest dollar loss from tornadoes in August
 - 10.4 min Avg lead time

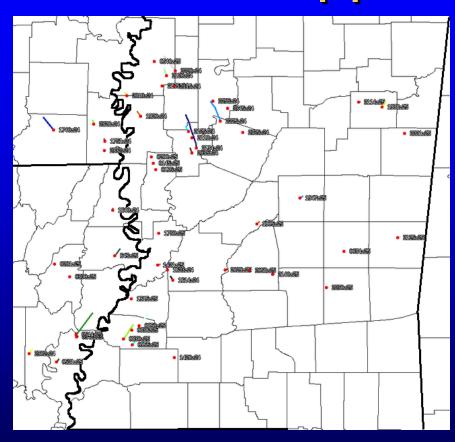






Rita Tornadoes in Mississippi

- 66 Tornadoes
 - Sept 23-25, 2005
 - Largest outbreak in Jackson WFO County Warning Area since records have been kept (1950)
 - Only 1 fatality!
 - 12.9 min avg lead time



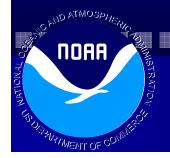




NWS SR Internet Site

www.srh.weather.gov

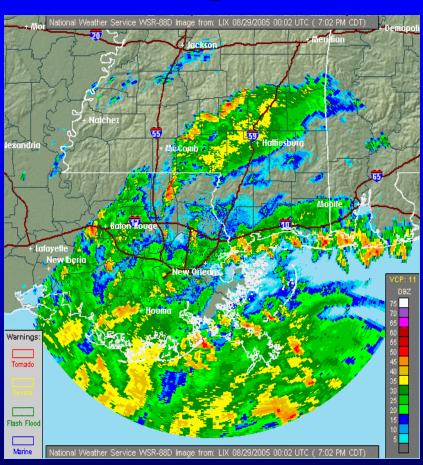
- Serves as your one-stop reliable source for the latest 24x7 weather info.
- Developed for both our partners and public.
 - Easy navigation
 - Data given in the manner <u>you</u> need it.
 - Increases public awareness and proper response
 - Vital loadsharing of NHC internet demands during high volume periods



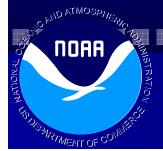


New NWS GIS Radar Webpages

- Available as time loops for <u>ALL</u> National Weather Service 88D Radars
- Radar images and warnings are GIS ready
- *Adds NWS warnings to the display
- Calculates distance from a storm feature and determines Latitude/Longitude
- Provides real time radar reflectivity, precipitation and now, velocity data!
- A Southern Region initiative, now National ... as of Feb 21, 2006



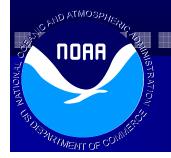
www.srh.weather.gov/ridge





Our new GIS Radar Webpages...

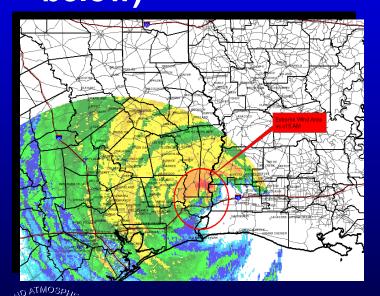
- Proved critical to NWS, partners and public
 - Used by EM's, govt officials, media and other professionals and of course, the public
 - WFO 88D Radar was 40-50% of our web traffic during land-falling hurricanes
 - This is equated to about <u>1.4 BILLION</u> hits during just Katrina and Rita
- Creative Feedback
 - Over 27,000 surveys and comments overwhelmingly supported our new GIS radar depiction.

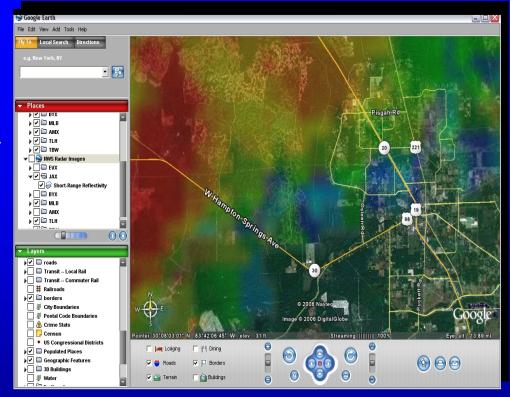




GIS Ready

 RIDGE radar images and warning polygons can be loaded into your GIS software (Google Earth-right, ArcGISbelow)



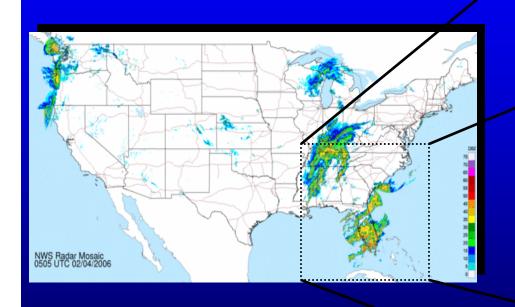


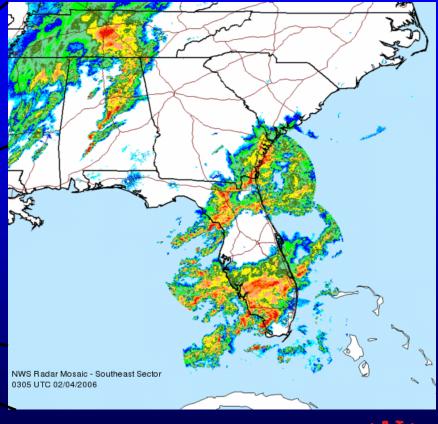
• GIS software allows you to integrate NWS radar in real time on your own custom GIS graphics & data

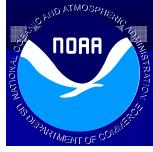


New and Improved National and Regional Mosaics

http://www.srh.noaa.gov/ridge











Mobile Weather

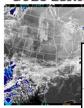
A lot of weather info when you need it... on mobile devices!

Another Southern Region Initiative



National Weather Service Southern Region

GOES Eastern US IR



Loop Satelli

National Weather Service Southern Region

Radar: kbmx Birmingham, AL 01:36 PM CST Wed Feb 09 2005



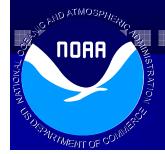
Fort Worth, TX
Current Local Conditions at:
Dallas / Fort Worth International Airport
Last Update: 02/09/05, 12:53 PM CST
Mostly Cloudy: 43 °F

Southern Region

s Radar Image s Storm Totals de Page Mode

Forecast at a Glance
Detailed 7-day Forecast
Your Local Radar
Current Conditions
Satellite Image
Hazardous Weather
Area Forecast Discussion

www.srh.weather.gov/wml

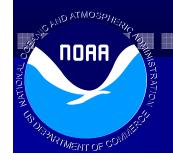




The Future of YOUR NWS

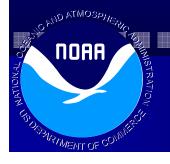
Improvement must build on the mesoscale success of the modernization –

...Mesoscale (local scale) weather & climate information, local "mesonets" of observations, better radar resolution with faster volume scans, finer scale local modeling, tactical met support to EM, digital forecasts... all resulting in better warnings.





Your National Weather Service epitomizes the concept: ...government closest to the people, serves best!





Questions? Bill.Proenza@noaa.gov (817) 978-1000

Would you like copies of the slides?

Go To: www.srh.weather.gov

At Left Margin Click on: At Left Margin Click on:

"Welcome from the Director"

"'06 Interdepartmental Hrcn Conf

